PLANT IMMIGRANTS

No. 127. NOVEMBER, 1916.

GENERA REPRESENTED IN THIS NUMBER.

Plates:

Foreign Seed and Plant Introduction.

EXPLANATORY NOTE.

This multigraphed circular is made up of descriptive notes furnished mainly by Agricultural Explorers and Foreign Correspondents relative to the more important introduced plants which have recently arrived at the Office of Foreign Seed and Plant Introduction of the Bureau of Plant Industry of the Department of Agriculture, together with accounts of the behavior in America of previous introductions. Descriptions appearing here are revised and published later in the INVENTORY OF PLANTS IMPORTED.

Applications for material listed in these pages may be made at any time to this office. As they are received they are placed on file, and when the material is ready for the use of experimenters it is sent to those on the list of applicants who can show that they are prepared to care for it as well as to others selected because of their special fitness to experiment with the particular plants imported. Do not wait for the annual catalogue entitled NEW PLANT INTRODUCTIONS in which are described the plants ready for sending out.

One of the main objects of the Office of Foreign Seed and Plant Introduction is to secure material for plant experimenters, and it will undertake as far as possible to fill any specific requests for foreign seeds or plants from plant breeders and others interested.

David Fairchild,

Agricultural Explorer in Charge.

April 14, 1917.

Acer argutum Maximowicz. (Aceraceae.) 43676. Seeds of a **maple** from Jamaica Plain, Mass. Presented by the Arnold Arboretum and selected by Mr. H. C. Skeels and Dr. W. Van Fleet, of this Department. A small deciduous maple, with erect branches, and doubly serrate leaves from 2 to 4 inches in length. The greenish-yellow flowers are produced in April before the leaves, and the keys are born in hanging racemes. This tree is a native of the mountain woods of Japan, and makes an elegant appearance, with its pale green leaves in summer and its purplish brown branches in winter. (Adapted from W. J. Bean, Trees and Shrubs Hardy in the British Isles, vol. 1, p. 135.)

Annona cherimola Miller. (Annonaceae.) 43485. From Duenas, Depto. Sacatepequez, Guatemala. Collected by Mr. Wilson Popenoe, Agricultural Explorer. "Budwood of an unusually choice variety of **cherimoya,** or *anona* as it is called here, from a garden in the village of Duenas, about 10 kilometers from Antigua. The cherimoya is very common in this region, which lies at an elevation of about 5200 feet. There is great variation in the shape and character of the fruit, and the trees seem to vary in productiveness. Most of them bear very few fruits. The tree from which this budwood was taken has a trunk about a foot in diameter, but at a distance of ten feet from the ground the top has been removed, probably two years ago, and the sprouts which are to form the new top are now about 6 feet long. There are a good number of these sprouts and they are now in bearing, producing, altogether, more fruit than is usually borne by the ordinary tree of mature size, which has a crown 10 to 20 feet broad, and a vastly greater amount of fruiting wood. Whether the productiveness of this variety is an inherent characteristic, or whether it has been induced by topping the tree, I am unable to determine, but on the chance that it may be inherently a heavy bearer I have secured budwood for propagation and trial in Florida and more especially in southern California, where cherimoya culture could undoubtedly be developed into a horticultural industry if prolific and otherwise desirable varieties were obtainable. The fruit of this variety is of good size and excellent appearance. It varies from 3 to 7 inches in length, and from about 6 ounces to nearly 3 pounds in weight. In form it is uniformly conical, blunt at the apex and the surface is nearly smooth, the carpellary areas being indicated by raised lines.

The color is light green. The fruit begins to ripen about the first of October, but the season is not at its height until after the end of the year. Many of the fruits are attacked by an insect which burrows in the seeds. Its presence can be detected by small round holes on the surface of the fruit." (Popenoe.)

Campylotropis macrocarpa (Bunge) Rehder. (Fabaceae.) 43679. Seeds from Jamaica Plain, Mass. Presented by the Arnold Arboretum and selected by Mr. H. C. Skeels and Dr. W. Van Fleet, of this Department. A shrub, up to 6 feet in height, with long-stalked leaves and oval leaflets. The purple flowers appear in many-flowered racemes about 3 inches long, and the glabrous pods are more than ½ inch long. This shrub is found in northern and central China. (Adapted from Bailey, Standard Cyclopedia of Horticulture, p. 1845, under *Lespedeza macrocarpa.*)

Cassia eremophila A. Cunningham. (Caesalpiniaceae.) 43650. Seeds from Cairo, Egypt. Presented by the Director, Horticultural Division, Ministry of Agriculture, Giza Branch. A woody plant, found in Australia, in all the colonies except Tasmania. The leaves are composed of two pairs of very narrow leaflets, and the pods are very smooth. In Australia both the pods and the leaves of this plant are eaten by stock. (Adapted from Maiden, Useful Native Plants of Australia, p. 47, under *Cassia nemophila.*)

Cordia myxa L. (Boraginaceae.) 43654. Seeds of **Sebesten** from Cairo, Egypt. Presented by the Director, Horticultural Division, Ministry of Agriculture, Giza Branch. A moderate-sized deciduous tree, found in tropical Asia and Australia, with oval leaves and thick, rough bark. The wood is soft, and is said to have furnished the wood from which the Egyptian mummy cases were made. In India it is used for boat-building, gun stocks and agricultural implements; it is an excellent fuel. The fibrous bark is made into ropes, and is used for caulking boats. The fruits are succulent and mucilaginous, and when young these are eaten as vegetables, and also pickled. They have also been employed as pectoral medicines. (Adapted from Maiden, Useful Native Plants of Australia, pp. 19, 165, 407, 620, 639, and from Gamble, Manual of India Timbers, p. 270.)

Cotoneaster horizontalis perpusilla Schneider. (Malaceae.) 43682. Seeds from Jamaica Plain, Mass. Presented by the Arnold Arboretum and selected by Mr. H. C. Skeels and Dr W. Van Fleet, of this Department. A low Chinese shrub, with the branches almost horizontal, and roundish oval leaves, less than 1/3 inch long. The flowers are erect and pink, and the bright red, ovoid fruit has usually 3 seeds. This variety differs from the typical species in having smaller leaves and fruits. (Adapted from Bailey, Standard Cyclopedia of Horticulture, p. 865.)

Euonymus yedoensis Koehne. (Celastraceae.) 43688. Seeds from Jamaica Plain, Mass. Presented by the Arnold Arboretum and selected by Mr. H. C. Skeels and Dr. W. Van Fleet, of this Department. A deciduous shrub or small tree, growing 10 feet or more high, with pinkish purple fruit. This shrub is a native of Japan, and in autumn its leaves turn a brilliant red. (Adapted from W. J. Bean, Trees and Shrubs, Hardy in the British Isles, vol. 1, p. 543.)

Feroniella oblata Swingle. (Rutaceae.) 43566. Seeds from Saigon, Cochin-China. Presented by Mr. P. Morange, Director, Agricultural and Commercial Services. A spiny tree, 25 to 65 feet in height, native of Cambodia and Cochin China, growing rather commonly in forests, both in the plains and on the mountains. The leaflets of the pinnate leaves are oval with rounded or flattened tips, and the very fragrant, white flowers appear in many-flowered panicles, growing on the branches of the previous year's growth. The fruits are borne in clusters of 3 or 4, are shaped like a flattened sphere, and are from 2 to 2½ inches in diameter. The pulp is edible, sub-acid and pinkish, has a pronounced orange flavor when young, and is used as a condiment in sauces. (Adapted from Swingle, in Bailey, Standard Cyclopedia of Horticulture, pp. 1219, 1220.)

Hydrangea xanthoneura Diels. (Hydrangeaceae.) 43690. Seeds from Jamaica Plain, Mass. Presented by the Arnold Arboretum and selected by Mr. H. C. Skeels and Dr. W. Van Fleet, of this Department. A deciduous shrub, about 8 feet in height, of a loose straggling habit. The leaves, dark green above and pale beneath, are in threes and of an oval shape. The creamy white sterile flowers are in flattish panicles of a width of about 6 inches, and the perfect flowers are dull

white and ¼ inch wide. This is a native of central China. (Adapted from W. J. Bean, Trees and Shrubs, Hardy in the British Isles, vol. 1, 631.)

Hypericum patulum henryi Bean. (Hypericaceae.) 43692. Seeds of **St.-John's-wort** from Jamaica Plain, Mass. Presented by the Arnold Arboretum and selected by Mr. H. C. Skeels and Dr. W. Van Fleet, of this Department. A hardy evergreen shrub, native of northern India and the Himalayas, with very large dark green leaves and large handsome yellow flowers. (Adapted from Curtis's Botanical Magazine, plate 4949. See also S.P.I. No. 38153 for further data.)

Kalanchoe marmorata Baker. (Crassulaceae.) 43658. Seeds from Cairo, Egypt. Presented by the Director, Horticultural Division, Ministry of Agriculture, Giza Branch. A very stout, low branching shrub, native of Abyssinia, where it grows in the mountains. The oval, succulent leaves are pale green, blotched with purple; the young leaves are orange-green with blood-red spots; all of the leaves are crenate. The creamy-white flowers are in large compound panicles, and the individual flowers are more than two inches long. (Adapted from Gardener's Chronicle, vol. 12, Sept. 10, 1892, and from Curtis's Botanical Magazine, plate 7333.)

Lespedeza formosa (Vogel) Koehne. (Fabaceae.) 43693. Seeds from Jamaica Plain, Mass. Presented by the Arnold Arboretum and selected by Mr. H. C. Skeels and Dr. W. Van Fleet, of this Department. An herb, or in warm regions a shrub up to 2 meters high, throwing up strong, wiry shoots each year from the crown. The stems are hairy, angled, reddish or brown, and the rosy purple flowers, nearly ½ inch long, occur in very numerous long, drooping racemes. The pod is about ½ inch long and pubescent. This plant, which is a native of Japan and China, is a very desirable late bloomer. (Adapted from Bailey, Standard Cyclopedia of Horticulture, p. 1845, under *L. sieboldii.*)

Lonicera maackii erubescens Rehder. (Caprifoliaceae.) 43698. Seeds of **honeysuckle** from Jamaica Plain, Mass. Presented by the Arnold Arboretum and selected by Mr. H. C. Skeels and Dr. W. Van Fleet, of this Department. A rather low, spreading shrub, with broadly oval leaves which are dark green above and paler beneath. The white flowers are large and tinted with pink, and

Readers are requested to insert on p. 1079, after "red" at the beginning of the 12th line, the following lines which give the remainder of that description and the beginning of the next one: "This shrub, which is a native of central China, is most beautiful in the fall, for the dark green foliage and the black fruits last until November. (Adapted from Rehder, in Bailey, Standard Cyclopedia of Horticulture, p. 1910.)

Malus arnoldiana Rehder. (Malaceae.) 43700. Plants of a hybrid **apple** from Jamaica Plain, Mass. Presented by the Arnold Arboretum and selected by Mr. H. C. Skeels and Dr. W. Van Fleet, of this Department."

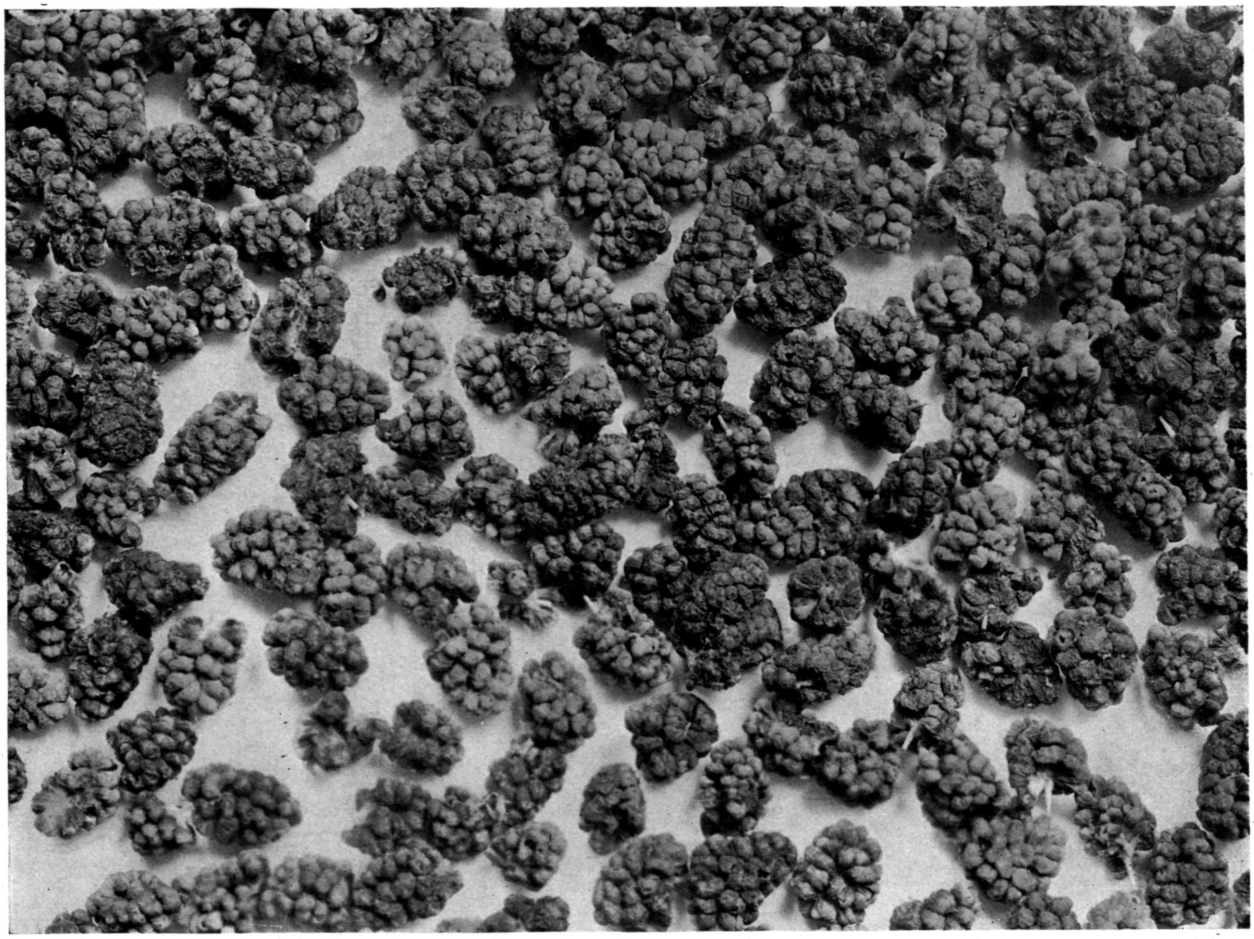
the fruit is dark red. This variety is found in central China. A very desirable late bloomer. (Adapted from Rehder, in Bailey, Standard Cyclopedia of Horticulture, p. 1910.)

Lonicera maackii podocarpa Franchet. (Caprifoliaceae.) 43699. Seeds of **honeysuckle** from Jamaica Plain, Mass. Presented by the Arnold Arboretum and selected by Mr. H. C. Skeels and Dr. W. Van Fleet, of this Department. A low, spreading shrub, with broadly oval, short-tipped dark green leaves. The flowers are white, fading to yellowish, and the fruit is dark red. This is a hybrid of *Malus floribunda* with one of the hybrids of *Malus baccata*, and appeared spontaneously in the Arnold Arboretum several years ago. It makes a smaller tree than *M. floribunda*, but its long spreading and arching branches are very graceful, and the flowers produced on long stems are more than twice as large as those of *M. floribunda*. These flowers are a beautiful pink, and it is considered by some persons to be the most beautiful of the crabapples. (Adapted from Arnold Arboretum, Bulletin of Popular Information, Nos. 3, 1911, and 39, 1913.)

Montanoa hibiscifolia (Benth.) C. Koch. (Asteraceae.) 43660. Seeds from Cairo, Egypt. Presented by the Director, Horticultural Division, Ministry of Agriculture, Giza Branch. One of the **tree-daisies** of Central America which is easily distinguished by its 5 to 7 lobed leaves, which are opposite and entire. It is easily cultivated, the seeds being started indoors, and the plants transferred to the open for foliage effects. It may also be propagated by cuttings. (Adapted from Bailey, Standard Cyclopedia of Horticulture, p. 2064, and from Koch, Wochenschrift des Vereines zur Beforderung des Gartenbaues, vol. 7, p. 407.)

Persea americana Miller. (Lauraceae.) 43486. Budwood of **avocado** from Santa Maria de Jesus, Depto. Sacatepequez, Guatemala. Collected by Mr. Wilson Popenoe, Agricultural Explorer. "From the garden of an Indian, who refused to divulge his name. The garden is in the center of the village, toward the Volcan de Agua from the central plaza. Santa Maria de Jesus is a small village located upon the upper slopes of the Volcan de Agua, at an elevation (according to my barometer) of 6700 feet. It is about 10 kilometers from Anti-

gua. As one climbs up the broad slope of the volcano the character of the vegetation changes considerably, and many of the plants common in gardens at Antigua are not grown here because of the cold. Among the plants which are conspicuous by their absence are the banana, the orange (and other citrus fruits), and the tender ornamental plants, such as the royal palm. In their stead, the gardens of the Indians at Santa Maria are filled with peach trees, chayote vines, granadilla vines (*Passiflora ligularis*), and vegetables such as peas. The hardy Abyssinian banana is a common ornamental plant. Among the plants of the lower elevations which persist are the cherimoya, the avocado, and the matasano (*Casimiora*), though I only saw one tree of the latter. *Grevillea robusta* is one of the commonest ornamental trees. It can thus be seen that the vegetation is not at all tropical in character, and it must get quite cold in winter. The Commandant assures me that it goes below freezing, but figures are lacking. This avocado has been obtained in the hope that it may prove hardier than those from lower elevations, and thus of value farther north in Florida than the majority of varieties can be grown. In California it may succeed in regions which are a trifle too cold for the average Guatemalan variety. It should at least be given a test with this in view. The fruit is not yet fully grown, so it cannot be fully described. The tree is about 25 feet high, and is carrying a fair crop of fruit. It has good large wood and seems to be a stronger grower than some I have seen. The fruits are almost round, tending toward broadly obovoid, and obscurely ribbed. The surface is very light green, almost glossy, with numerous large yellowish dots. The skin is slightly over one-sixteenth inch thick, and the seed is very small in comparison with the size of the fruit. It looks like a good avocado. The season of ripening could not be ascertained, but probably is not earlier than April." 43487. "From the garden of an Indian, near the center of the village, to the west of the church. This village is situated on the road between Guatemala City and Antigua, at an elevation of 6850 feet, (according to my barometer.) The principal fruit trees in the garden of the Indians are peaches, cherimoyas, avocados, quinces, manzanillas (*hawthorns*), and pomegranates. There are are no bananas here, and I only saw two or three orange trees. The tropical fruits do not succeed at this elevation. The variety like 43486 has been selected because of its



DRIED MULBERRIES FROM AFGHANISTAN, MORUS ALBA.

These dried mulberries were presented by His Majesty the Ameer of Afghanistan to the Department of Agriculture through his official representative, Mr. A. C. Jewett. They are practically, but not quite, seedless and extremely palatable. Analysis showed them to have about the food value of dried figs. According to Mr. Jewett they form almost the exclusive food of hundreds of thousands of Afghans for several months each year. Photographed (P15747FS) by E. L. Crandall, April 6, 1915.

TETRASTIGMA, A NEW FRUITING VINE FROM MANILA, TETRASTIGMA HARMANDI PLANCHON, S. P. I. No. 34630.

This vine has made a remarkable growth at the Davie Experimental Farm on the Everglades, where it was first planted out July 9, 1914. It is described by Mr. C. F. Baker as a tall-growing woody vine which becomes loaded with fruit of the size and appearance of the Scuppernong grape and which is edible, making a very good refresco. It flowered in 1915, but did not fruit and seems to have been unaffected by the floods produced by 17 inches of rain which fell in less than three days. Photographed (P20010FS) by David Fairchild, February 6, 1916.

possible hardiness. Coming from an elevation about 1750 feet above Antigua, it may prove to be more frost resistant than varieties from the latter place, and it should be given a trial in localities in California and Florida which are thought to be slightly too cold for the average variety of this type. The tree is about 20 feet high, with a good crown. According to the owner, it bears over 200 fruits in good seasons, but sometimes the crop is partly destroyed by frost. The last of the fruits of this year's crop are now being picked. It seems to ripen later than most of the trees in Antigua, but this may be due to the difference in elevation. The fruit is of good size and quality, oblong-oval, weighing up to a pound, deep green in color, with flesh of good flavor and a seed slightly large in size, tight in the cavity. Form truncate oval; size medium to above medium, weight 10 to 16 ounces, length $3\frac{3}{8}$ to $3\frac{7}{8}$ inches, greatest breadth 3 to $3\frac{5}{8}$ inches; base obliquely flattened, the stem inserted to one side in a shallow cavity; stem very stout, about 4 inches long; apex truncate to rounded, the stigmatic point slightly raised; surface pebbled or slightly rough, dull deep green in color, with few yellowish dots and numerous rough russet scars; skin one-sixteenth inch thick at base, slightly thicker at apex of fruit, coarsely granular, separating readily, brittle; flesh firm, oily, rich yellow near the seed, changing to pale green near the skin, very slightly discolored around the base of the seed with fiber traces; flavor very rich, nutty; quality very good; seed medium to rather large in size, oblate-conic in form, $1\frac{5}{8}$ to 2 inches broad, tight in the cavity, with both seed coats adhering closely." 43560. "From the garden of Victor Garcia, who keeps a small cantina on the road from Antigua to San Antonia Aguas Calientes, just above the church at San Lorenzo del Cubo. After two weeks search in the Antigua region, this is the best early variety I have been able to find. There are practically no avocados in the Antigua market at the present time; here and there one finds a tree which ripens its fruits this early, but most of them are large-seeded. At lower elevations than this there are more trees which ripen their fruits in October, but here at 5000 feet there are exceedingly few. This variety is small, but I believe it will be found that the size is amply large enough where it is desired to serve a half fruit as a portion. The seed

is very small in proportion to the size of the fruit, rather a rare thing in an avocado of round or oblate form, for as a rule fruits of this shape have large seeds. The skin is thick, and the flesh clear, of good color and texture and the quality is good for an early fruit. An early variety of the Guatemalan type is much needed for California, since none of the varieties so far tested in that state ripen in time for the holiday season. The tree from which this budwood was taken stands on a rather steep hillside, the soil being a loose sandy loam. The trunk of the tree is about a foot and a half thick, and the crown spreading, 35 feet in diameter and about the same in height. The foliage is rather scanty, especially so at the present time, as the tree is coming into flower. The crop of fruit is enormous; it is impossible to make an accurate count, but the number of fruits is certainly well above 1000 and may be nearer 2000. Next year it will probably bear a comparatively small crop, for according to the avocado growers of the Antigua region, practically all of the trees bear a heavy crop one season followed by a very light one the next. With good culture the fruits would probably be larger than they are on this tree; it seems reasonable to expect that they will weigh 12 ounces. Fruit roundish oblate, size below medium, weight 8 to 10 ozs., length $2\frac{3}{4}$ to 3 inches, greatest breadth 3 to $3\frac{1}{4}$ inches, base truncate, the stem inserted squarely without depression; stem fairly stout, 4 inches long; apex flattened, sometimes slightly oblique; surface pebbled dull purple in color, with numerous small yellowish dots, skin one sixteenth inch thick at basal end of fruit, about one eighth inch at apex, separating readily from the flesh, rather finely granular, brittle; flesh deep cream yellow near seed, changing to very pale green near skin, quite free from fiber discoloration, firm in texture and moderately rich in flavor; seed small in comparison to size of fruit, oblate, 1 5/8 inch broad, $1\frac{1}{4}$ inch long, tight in the seed cavity with both seed coats adhering closely. Season at San Lorenzo del Cubo commencing about the middle of October, but not all the fruits are mature until several weeks later. This variety is particularly recommended for trial in the avocado districts of California, where a variety which will mature early in the winter is much needed. It may not ripen quite so early in California as it does in Guatemala, due to the difference in climatic conditions." 43602. "From the patio in the

rear of the Masonic building, 7a Avenida Norte No. 4, Guatemala City, Guatemala. The altitude here is approximately 4900 feet. This tree has been mentioned by several people as producing the finest fruit which they have ever eaten. Don Pedro Bruni, who has lived in Guatemala many years, and is thoroughly familiar with avocados, tells me that he has never eaten a fruit of better quality than this. The tree is very large, standing at least 50 feet high, with a trunk about two feet in diameter. Its age is unknown, but it is probably 50 or 75 years at least. It has a dense crown, and seems to be in vigorous condition. As is commonly the case with avocados of the Guatemalan type, the tree does not appear to produce a large crop of fruit every season. It bore well last year, but is not fruiting at all this year, hence it has not been possible to examine the fruit. The caretaker on the property described it as being pear-shaped, medium sized (probably about a pound in weight or perhaps a trifle more), and deep purple in color when ripe. The seed is said to be small or medium sized, and the flesh rich yellow in color, of unusually rich flavor. It is difficult to ascertain the length of the season, but the fruit is said to be at its best from May to July. The tree is said to bear heavy crops in some seasons, and the fact that it is not bearing this year is not against the variety, since this is the habit of a great many trees of this type; it seems, in fact, to be the rule. Although I have not been able to examine this fruit personally, it seems well worthy of trial in California and Florida on the strength of the recommendation given it by the people here." (Popenoe.)

Rosa abietina Grenier. (Rosaceae.) 43706. **Rose** hips from Jamaica Plain, Mass. Presented by the Arnold Arboretum and selected by Mr. H. C. Skeels and Dr. W. Van Fleet, of this Department. A shrub with slender, often climbing brown stems, becoming 10 feet high, and usually armed with straight prickles. The leaves are composed of 5 to 9 leaflets, which are dark green, and the bright yellow flowers occur singly or several at a time. The flowers are from 2 to $2\frac{1}{2}$ inches wide, and have a very unpleasant odor. The fruit is round. This rose is a native of western Asia. (Adapted from Rehder, in Bailey, Standard Cyclopedia of Horticulture, p. 2995, under *Rosa foetida*.)

Rosa ferox Bieberstein. (Rosaceae.) 43714. **Rose** hips from Jamaica Plain, Mass. Presented by the Arnold Arboretum and selected by Mr. H. C. Skeels and Dr. W. Van Fleet, of this Department. A dwarf, compact little bush, from 1 to 2 feet high, of a rounded form, with numerous decurved prickles. The leaves are composed of 5 to 7 leaflets, coarsely but evenly serrate and the white flowers, which are either solitary or in clusters of two or three, are from 1 to 1¼ inches long. The roundish fruit is red. This is a native of the Crimea and Caucasus. (Adapted from W. J. Bean, Trees and Shrubs Hardy in the British Isles, vol. 2, p. 426.)

Rosa lheritieranea Thory. (Rosaceae.) 43718. **Rose** hips from Jamaica Plain, Mass. Presented by the Arnold Arboretum and selected by Mr. H. C. Skeels and Dr. W. Van Fleet, of this Department. This is supposed to be a hybrid between *R. pendulina* and *R. chinensis*, and climbs to a height of 12 feet, with slender, sparingly prickly branches. The leaves are composed of 3 to 7 leaflets, and the purple flowers, which vary with lighter and darker shades, and are double or semi-double, occur very plentifully in nodding corymbs. (Adapted from Rehder, in Bailey Standard Cyclopedia of Horticulture, p. 2993.)

Rosa moyesii Hemsl. & Wilson. (Rosaceae.) 43588. Cuttings of **rose** from Kew, England. Presented by Mr. W. Watson, Curator, Royal Botanic Gardens. A shrub, 6 to 10 feet in height, with erect stems armed with stout, pale, broad-based prickles. The leaves are from 3 to 6 inches long, and are composed of 7 to 13 leaflets, which are dark green above and pale glaucous below. The flowers, which occur solitary or in pairs, are a lurid dark red, and from 2 to 2½ inches in width. The red, bottle-shaped fruit is 1½ inch or more long, with a distinct neck between the body of the fruit and the persistent sepals. This rose is a native of western China, and was first found on the frontier of Tibet, at an altitude of 9000 feet and over. It is perfectly hardy in the British Isles, and is remarkable for the color of its petals. (Adapted from W. J. Bean, Trees and Shrubs Hardy the British Isles, vol. 2, p. 435.)

Rosa prattii Hemsley. (Rosaceae.) 43723. **Rose** hips from Jamaica Plain, Mass. Presented by the Arnold Arboretum and selected by Mr. H. C. Skeels and Dr. W.

Van Fleet, of this Department. A slender-branched shrub, up to 8 feet in height, with numerous bristles and slender prickles. The leaves are composed of 7 to 15 obtuse, serrate leaflets, and the pink flowers, which occur 1 to 3 in a cluster, are three-fourths inch wide. The scarlet fruit is about one-third inch long. This rose is a native of western China. (Adapted from Rehder, in Bailey, Standard Cyclopedia of Horticulture, p. 2998.)

Schinopsis lorentzii (Griseb.) Engler. (Anacardiaceae.) 43548. Seeds of **quebracho colorado** from Buenos Aires, Argentina. Received through the Bureau of Chemistry, from the Food Research Laboratory, Philadelphia, who secured it from the Director of the Botanical Gardens, Buenos Aires. "Red Quebracho. Tree of very hard wood, with compound, coriaceous leaves; flowers borne in branching clusters, fruit a samara. It is one of the Argentine woods which, exposed to the air, buried in part or wholly or submerged in water keeps for 25 years in good condition as is shown by the tests made with posts, beams, ties, etc., laid by the Argentina railways. The products which are obtained from this tree constitute the principal source of income of the people where it grows. From the logs are manufactured beams, ties, telegraph posts, lamp posts, etc., which are exported in large quantities to foreign countries. The charcoal is very compact; and the extract (tannin) is an important product. The sawdust is very much used intanning." (Carrasco.)

Solanum melongena L. (Solanaceae.) 43636. Seeds of **egg-plant** from Westfield, New Jersey. Presented by Dr. R. S. Keeler. "The Japanese egg-plant of the long-fruit variety, grown from seed in my own garden at Westfield, New Jersey, from seed imported from Japan. This variety of egg plant is very fruitful and possesses fine keeping qualities. In fact, I still have some of them on hand and find them very good eating, although they were picked from the garden five weeks ago, after having been exposed to four or five rather severe frosts and a temperature as low as 36 degrees." (Keeler.)

Viburnum burejaeticum Regel & Herd. (Caprifoliaceae.) 43730. Seeds from Jamaica Plain, Mass. Presented by the Arnold Arboretum and selected by Mr. H. C. Skeels and Dr. W. Van Fleet, of this department. A shrub, 4

to 10 feet high, native of Chosen. The small, light green leaves and the small umbels of white flowers, followed by the jet black berries, make this plant very ornamental. (Adapted from note of F. N. Meyer.)

Viburnum sargentii Koehne. (Caprifoliaceae.) 43734. Seeds from Jamaica Plain, Mass. Presented by the Arnold Arboretum and selected by Mr. H. C. Skeels and Dr. W. Van Fleet, of this Department. A shrub, growing to a height of from 5 to 8 feet, with roundish leaves, and flowers in flat corymbs. The rounded fruits are scarlet or orange-scarlet, and ripen in September. (Adapted from Florists' Exchange.)

Viburnum theiferum Rehder. (Caprifoliaceae.) 43735. Seeds from Jamaica Plain, Mass. Presented by the Arnold Arboretum and selected by Mr. H. C. Skeels and Dr. W. Van Fleet, of this Department. A decidous shrub of erect habit, up to 12 feet in height, with smooth gray stems. The narrowly oval leaves are sharply serrate, taper-pointed, and dark green above. The white flowers are all perfect, and are produced in terminal cymes 1½ to 2 inches in with. The red fruit is egg-shaped and nearly ½ inch long. This shrub is a native of central and western China. The specific name refers to the use of the leaves by the monks of Mount Omei as a kind of tea. (Adapted from W. J. Bean, Trees and Shrubs Hardy in the British Isles, vol. 2, p. 657.)

Viburnum wrightii Miquel. (Caprifoliaceae.) 43736. Seeds from Jamaica Plain, Mass. Presented by the Arnold Arboretum and selected by Mr. H. C. Skeels and Dr. W. Van Fleet, of this Department. A deciduous shrub, 6 to 10 feet high, with erect stems. The bright green leaves are 2 to 5 inches in length, and are slenderly pointed. The white flowers are all perfect, and are produced in May on smooth or downy-stalked, five-rayed cymes, 2 to 4 inches in width. The roundish oval red fruits are 1/3 inch long. This shrub is a native of Japan and China. (Adapted from W. J. Bean, Trees and Shrubs Hardy in the British Isles, vol. 2, p. 660.)

United States Department of Agriculture.
Bureau of Plant Industry.
Office of Foreign Seed and Plant Introduction.
Washington, D. C.

Scientific Staff.

David Fairchild, Agricultural Explorer in Charge.
P. H. Dorsett, Plant Introducer in charge of Plant Introduction Field Stations.
B. T. Galloway, Plant Pathologist.
Peter Bisset, Plant Introducer in charge of Foreign Plant Distribution.
Frank N. Meyer and Wilson Popenoe, Agricultural Explorers.
H. C. Skeels, Botanical Assistant, in charge of Collections.
S. C. Stuntz, Botanical Assistant, in charge of Explorers' Notes, Foreign Correspondence and Publications.
R. A. Young, Botanical Assistant, in charge of Dasheen and Tung Oil Investigations.
David A. Bisset, Nathan Menderson and G. P. Van Eseltine, Assistants.

Staff of Field Stations.

R. L. Beagles, Farm Superintendent in charge of Chico, Calif., Plant Introduction Field Station.
J. M. Rankin, Assistant Farm Superintendent, in charge of Rockville, Md., (Yarrow) Plant Introduction Field Station.
Edward Goucher, Propagator.
Edward Simmonds, Gardener and Field Station Superintendent in charge of Miami, Fla., Plant Introduction Field Station.
J. E. Morrow, Assistant Superintendent in charge of Brooksville, Fla., Plant Introduction Field Station.

Collaborators.

Mr. Aaron Aaronsohn, Haifa, Palestine.
Mr. Thomas W. Brown, Cairo, Egypt.
Mr. H. M. Curran, Laurel, Md.
Mr. M. J. Dorsey, University Farm, St. Paul, Minn.
Mr. H. T. Edwards, Ridgewood, N. J.
Dr. Gustav Eisen, California Academy of Sciences, San Francisco, Calif.
Mr. E. C. Green, Serviço do Algodao no Brazil, Rio de Janeiro, Brazil.
Mr. A. C. Hartless, Saharanpur, India.
Mr. E. J. Kraus, University of Chicago, Chicago, Ill.
Mr. Barbour Lathrop, Chicago, Ill.
Miss Eliza R. Scidmore, Yokohama, Japan.
Mr. Charles Simpson, Little River, Fla.
Mr. H. P. Stuckey, Experiment, Ga.
Dr. L. Trabut, Director, Service Botanique, Algiers, Algeria.
Mr. E. H. Wilson, Arnold Arboretum, Jamaica Plain, Mass.